

PATENT

Our Docket: P-LA 4798

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: )  
Pierschbacher and Ruoslahti )  
Serial No.: Not yet assigned )  
Filed: Herewith )  
For: CONFORMATIONALLY )  
STABILIZED CELL ADHESION )  
PEPTIDES )

Commissioner for Patents  
Box Patent Application  
Washington, D.C. 20231

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**PRELIMINARY AMENDMENT**

Applicants request entry of the following Preliminary  
Amendment and consideration of the accompanying remarks.

**I. AMENDMENT**

In the Claims:

Please cancel claims 1 to 44.

Please insert the following new claims:

--45. (New) A method of inhibiting binding of a  
natural ligand to a vitronectin receptor comprising contacting  
said vitronectin receptor with a peptide containing the sequence  
Arg-Gly-Asp, said Arg-Gly-Asp sequence being conformationally  
restricted, thereby inhibiting binding of said natural ligand to  
said vitronectin receptor selectively with respect to the  
function of other receptors

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46. (New) The method of claim 45, wherein said inhibition occurs *in vivo*.

47. (New) A method of selectively inhibiting attachment of cells to vitronectin comprising providing to said cells a solution of a peptide containing the sequence Arg-Gly-Asp, said Arg-Gly-Asp sequence being conformationally restricted, thereby selectively inhibiting attachment of said cells to said vitronectin.

48. (New) The method of claim 47, wherein said inhibition occurs *in vivo*.

49. (New) A method of selectively inhibiting binding of vitronectin receptor-containing cells to a substrate comprising providing to said cells a solution containing a peptide that encompasses the sequence Arg-Gly-Asp, said Arg-Gly-Asp sequence being conformationally restricted, thereby selectively inhibiting binding of said vitronectin receptor-containing cells to said substrate.

50. (New) The method of claim 49, wherein said inhibition occurs *in vivo*.

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51. (New) A method of selectively inhibiting binding of vitronectin receptor-containing cells to a substrate comprising the steps of:

- a. providing to said cells a peptide containing the sequence Arg-Gly-Asp in solution, said Arg-Gly-Asp sequence being conformationally restricted; and
- b. contacting said cells with said solution.

52. (New) The method of claim 51, wherein said inhibition occurs *in vivo*.

53. (New) A method of selectively inhibiting binding of cells to a substrate comprising providing to said cells a solution of a peptide containing an Arg-Gly-Asp sequence chemically modified with an additional chemical structure, wherein said additional chemical structure conformationally restricts the stereochemical structure of said Arg-Gly-Asp sequence in such a way that the affinity of the Arg-Gly-Asp binding site sequence for a particular receptor is enhanced.

54. (New) The method of claim 53, wherein said inhibition occurs *in vivo*.--

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**REMARKS**

Upon entry of the present amendment, claims 45 to 54 will be pending.

General support for the new claims can be found throughout the specification and the claims as originally filed in parent application U.S. Serial No. 07/131,390. In particular, new claim 45 is supported in the specification, for example, at page 8, line 34, to page 9, line 5, and, further, by claims 27 and 38 as originally filed in parent application Serial No. 07/131,390. New claims 46, 48, 50, 52 and 54 are supported in the specification, for example, at page 9, lines 22 to 26. New claims 47, 49 and 51 are supported, for example, by claims 27 and 38 as originally filed in parent application U.S. Serial No. 07/131,390. New claim 53 is supported in the specification, for example, at page 7, lines 22 to 24, and, further, at page 8, line 34, to page 9, line 5. New claim 53 also is supported in the specification, for example, at page 6, lines 3 to 9.

Thus, as described above, each of new claims 45 to 54 is supported by the specification or claims of the parent application as originally filed.

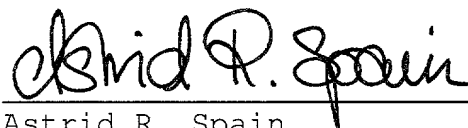
No fee is believed necessary to file this Preliminary Amendment. If any fee is required, however, authorization is given to charge the amount to Deposit Account No. 03-0370.

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The Examiner is invited to call the undersigned attorney or Cathryn Campbell if there are any questions in connection with this Communication.

Respectfully submitted,

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